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* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	NOV 21	CAS patent coverage to include exemplified prophetic substances identified in English-, French-, German-, and Japanese-language basic patents from 2004-present
NEWS 3	NOV 26	MARPAT enhanced with FSORT command
NEWS 4	NOV 26	CHEMSAFE now available on STN Easy
NEWS 5	NOV 26	Two new SET commands increase convenience of STN searching
NEWS 6	DEC 01	ChemPort single article sales feature unavailable
NEWS 7	DEC 12	GBFULL now offers single source for full-text coverage of complete UK patent families
NEWS 8	DEC 17	Fifty-one pharmaceutical ingredients added to PS
NEWS 9	JAN 06	The retention policy for unread STNmail messages will change in 2009 for STN-Columbus and STN-Tokyo
NEWS 10	JAN 07	WPIDS, WPINDEX, and WPIX enhanced Japanese Patent Classification Data
NEWS 11	FEB 02	Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS 12	FEB 02	GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS 13	FEB 06	Patent sequence location (PSL) data added to USGENE
NEWS 14	FEB 10	COMPENDEX reloaded and enhanced
NEWS 15	FEB 11	WTEXTILES reloaded and enhanced
NEWS 16	FEB 19	New patent-examiner citations in 300,000 CA/CAplus patent records provide insights into related prior art
NEWS 17	FEB 19	Increase the precision of your patent queries -- use terms from the IPC Thesaurus, Version 2009.01
NEWS 18	FEB 23	Several formats for image display and print options discontinued in USPATFULL and USPAT2
NEWS 19	FEB 23	MEDLINE now offers more precise author group fields and 2009 MeSH terms
NEWS 20	FEB 23	TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms
NEWS 21	FEB 23	Three million new patent records blast AEROSPACE into STN patent clusters
NEWS 22	FEB 25	USGENE enhanced with patent family and legal status display data from INPADOCDB
NEWS 23	MAR 06	INPADOCDB and INPAFAMDB enhanced with new display formats
NEWS 24	MAR 11	EPFULL backfile enhanced with additional full-text applications and grants
NEWS 25	MAR 11	ESBIOBASE reloaded and enhanced
NEWS 26	MAR 20	CAS databases on STN enhanced with new super role for nanomaterial substances
NEWS 27	MAR 23	CA/CAplus enhanced with more than 250,000 patent equivalents from China

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 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
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Enter NEWS followed by the item number or name to see news on that
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* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 03:12:20 ON 30 MAR 2009

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.22       0.22

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
       AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
       CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
       DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 03:12:42 ON 30 MAR 2009

68 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s treat?(p)ammonia and wastewater and carrier? and sludge and immobili? and
carrier and matrix? and bacteria and oxidiz?
          0*  FILE ADISNEWS
          0*  FILE ANTE
          0*  FILE AQUALINE
          0*  FILE BIOENG
          0*  FILE BIOTECHABS
          0*  FILE BIOTECHDS
          0*  FILE BIOTECHNO
          0*  FILE CEABA-VTB
          0*  FILE CIN
  21 FILES SEARCHED...
          0*  FILE FOMAD
  31 FILES SEARCHED...
          0*  FILE FOREGE
          0*  FILE FROSTI
          0*  FILE FSTA
          0*  FILE KOSMET
          0*  FILE NTIS
          0*  FILE NUTRACEUT
          0*  FILE PASCAL
          0*  FILE PHARMAML
  51 FILES SEARCHED...
          1   FILE PROMT
```

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          3   FILE USPATFULL
          1   FILE USPAT2
          0*  FILE WATER
  66 FILES SEARCHED...

   3 FILES HAVE ONE OR MORE ANSWERS,   68 FILES SEARCHED IN STNINDEX

L1    QUE TREAT?(P) AMMONIA AND WASTEWATER AND CARRIER? AND SLUDGE AND IMMOBILI?
          AND CARRIER AND MATRIX? AND BACTERIA AND OXIDIZ?

=> file promt uspatfull uspat2
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 3.40       3.62

FILE 'PROMT' ENTERED AT 03:15:41 ON 30 MAR 2009
COPYRIGHT (C) 2009 Gale Group. All rights reserved.

FILE 'USPATFULL' ENTERED AT 03:15:41 ON 30 MAR 2009
CA INDEXING COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 03:15:41 ON 30 MAR 2009
CA INDEXING COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l1
L2           5 L1

=> rem dup l2
DUP IS NOT VALID HERE
The DELETE command is used to remove various items stored by the
system.

To delete a saved query, saved answer set, saved L-number list, SDI
request, batch request, mailing list, or user-defined cluster, format,
or search field, enter the name.  The name may include ?  for left,
right, or simultaneous left and right truncation.

Examples:

  DELETE BIO?/Q          - delete query names starting with BIO
  DELETE ?DRUG/A         - delete answer set names ending with DRUG
  DELETE ?ELEC?/L        - delete L-number lists containing ELEC
  DELETE ANTICOAG/S      - delete SDI request
  DELETE ENZYME/B        - delete batch request
  DELETE .MYCLUSTER      - delete user-defined cluster
  DELETE .MYFORMAT       - delete user-defined display format
  DELETE .MYFIELD        - delete user-defined search field
  DELETE NAMELIST MYLIST - delete mailing list

To delete an ordered document or an offline print, enter its
number.

Examples:

  DELETE P123001C        - delete print request
  DELETE D134002C        - delete document order request

To delete an individual L-number or range of L-numbers, enter the
L-number or L-number range.  You may also enter DELETE LAST followed
by a number, n, to delete the last n L-numbers.  RENUMBER or
NORENUMBER may also be explicitly specified to override the value of
SET RENUMBER.
```

Examples:

```
  DELETE L21            - delete a single L-number
  DELETE L3-L6          - delete a range of L-numbers
  DELETE LAST 4         - delete the last 4 L-numbers
  DELETE L33-           - delete L33 and any higher L-number
  DELETE -L55           - delete L55 and any lower L-number
  DELETE L2-L6 RENUMBER - delete a range of L-numbers and
                          renumber remaining L-numbers
  DELETE RENUMBER       - renumber L-numbers after deletion of
                          intermediate L-numbers
```

Entire sets of saved items, SDI requests, batch requests, user-defined items, or E-numbers can be deleted.

Examples:

```
  DELETE SAVED/Q - delete all saved queries
  DELETE SAVED/A - delete all saved answer sets
  DELETE SAVED/L - delete all saved L-number lists
  DELETE SAVED   - delete all saved queries, answer sets,
                   and L-number lists
  DELETE SAVED/S - delete all SDI requests
  DELETE SAVED/B - delete all batch requests
  DELETE CLUSTER - delete all user-defined clusters
  DELETE FORMAT  - delete all user-defined display formats
  DELETE FIELD   - delete all user-defined search fields
  DELETE SELECT  - delete all E-numbers
  DELETE HISTORY - delete all L-numbers and restart the
                   session at L1
```

To delete an entire multifile SDI request, enter DELETE and the name of the request. To delete a component from the multifile SDI, enter DELETE and the name of the component.

```
=> dup rem l2
PROCESSING COMPLETED FOR L2
L3             5 DUP REM L2 (0 DUPLICATES REMOVED)

=> d l3 1-5

L3   ANSWER 1 OF 5  USPATFULL on STN
AN     2008:354811  USPATFULL
TI     Anaerobic Production of Hydrogen and Other Chemical Products
IN     Cox, Marion E., Morgan Hill, CA, UNITED STATES
       McDonald, Jeremy N., San Jose, CA, UNITED STATES
       Nondorf, Laura M., Morgan Hill, CA, UNITED STATES
       Cox, Steven M., Morgan Hill, CA, UNITED STATES
PI     US 20080311640      A1  20081218
AI     US 2006-912881      A1  20060427 (11)
       WO 2006-US16332         20060427
                               20080623  PCT 371 date
PRAI   US 2005-678101P     20050503 (60)
       US 2005-677856P     20050503 (60)
       US 2005-678077P     20050503 (60)
       US 2005-678100P     20050503 (60)
       US 2005-678098P     20050503 (60)
       US 2005-677998P     20050503 (60)
DT     Utility
FS     APPLICATION
LN.CNT 4369
```

```
INCL   INCLM: 435/168.000
       INCLS: 435/290.400; 435/286.100; 435/303.200; 435/252.100
NCL    NCLM:  435/168.000
       NCLS:  435/252.100; 435/286.100; 435/290.400; 435/303.200
IC     IPCI   C12P0003-00 [I,A]; C12M0003-00 [I,A]; C12M0001-36 [I,A];
              C12N0001-20 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3   ANSWER 2 OF 5  PROMT  COPYRIGHT 2009 Gale Group on STN

ACCESSION NUMBER:   2006:321266  PROMT
TITLE:              Biological Treatment of VOCs: biotreatment methods can
                    offer advantages, such as lower operating and capital
                    costs, over the more-established chemical and physical
                    processes.
AUTHOR(S):          Doble, Mukesh
SOURCE:             Chemical Engineering, (June 2006) Vol. 113, No. 6, pp.
                    35(7).
                    ISSN: ISSN: 0009-2460.
PUBLISHER:          Access Intelligence, LLC.
DOCUMENT TYPE:      Newsletter
LANGUAGE:           English
WORD COUNT:         5477
                    *FULL TEXT IS AVAILABLE IN THE ALL FORMAT*

L3   ANSWER 3 OF 5  USPATFULL on STN
AN     2004:138960  USPATFULL
TI     Method for detecting ammonia-oxidizing bacteria
IN     Hovanec, Timothy A., Moorpark, CA, UNITED STATES
PA     Aquaria, Inc., Moorpark, CA (U.S. corporation)
PI     US 20040106133      A1  20040603
       US 7270957          B2  20070918
AI     US 2003-659980      A1  20030910 (10)
RLI    Continuation-in-part of Ser. No. US 2000-573684, filed on 19 May 2000,
       PENDING
PRAI   US 2002-386217P     20020919 (60)
       US 2002-386218P     20020919 (60)
       US 2002-386219P     20020919 (60)
DT     Utility
FS     APPLICATION
LN.CNT 2664
INCL   INCLM: 435/006.000
NCL    NCLM:  435/006.000
       NCLS:  435/091.200; 536/023.100; 536/024.300
IC     [7]
       ICM    C12Q001-68
       IPCI   C12Q0001-68 [ICM,7]
       IPCI-2 C12Q0001-68 [I,A]; C07H0021-02 [I,A]; C07H0021-00 [I,C*];
              C12P0019-34 [I,A]; C12P0019-00 [I,C*]
       IPCR   C12Q0001-68 [I,C]; C12Q0001-68 [I,A]; C02F0003-06 [N,C*];
              C02F0003-06 [N,A]; C02F0003-08 [N,C*]; C02F0003-08 [N,A];
              C02F0003-34 [N,C*]; C02F0003-34 [N,A]; C07H0021-00 [I,C];
              C07H0021-02 [I,A]; C07K0014-195 [I,C*]; C07K0014-195 [I,A];
              C12N0001-20 [I,C*]; C12N0001-20 [I,A]; C12N0001-21 [I,C*];
              C12N0001-21 [I,A]; C12N0009-06 [I,C*]; C12N0009-06 [I,A];
              C12N0015-11 [I,C*]; C12N0015-11 [I,A]; C12P0003-00 [I,C*];
              C12P0003-00 [I,A]; C12P0019-00 [I,C]; C12P0019-34 [I,A];
              C12S0005-00 [I,C*]; C12S0005-00 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3   ANSWER 4 OF 5  USPATFULL on STN
AN     91:105979  USPATFULL
```

```
TI     Biocatalyzed partial demineralization of acidic metal sulfate solutions
IN     Hunter, Robert M., 320 S. Willson Ave., Bozeman, MT, United States
       59715
PI     US 5076927              19911231
AI     US 1988-166033          19880309 (7)
DT     Utility
FS     Granted
LN.CNT 730
INCL   INCLM: 210/603.000
       INCLS: 210/610.000; 210/613.000; 210/614.000; 210/631.000; 210/912.000;
              435/262.000; 435/801.000
NCL    NCLM:  210/603.000
       NCLS:  210/610.000; 210/613.000; 210/614.000; 210/631.000; 210/912.000;
              435/262.000; 435/801.000
IC     [5]
       ICM    C02F003-28
       ICS    C02F011-04
       IPCI   C02F0003-28 [ICM,5]; C02F0011-04 [ICS,5]
       IPCR   C01B0017-00 [I,C*]; C01B0017-05 [I,A]; C02F0001-32 [N,C*];
              C02F0001-32 [N,A]; C02F0003-28 [I,C*]; C02F0003-28 [I,A];
              C02F0003-34 [I,C*]; C02F0003-34 [I,A]; C02F0009-00 [I,C*];
              C02F0009-00 [I,A]; C22B0003-00 [I,C*]; C22B0003-18 [I,A]
EXF    210/603; 210/607; 210/609; 210/610; 210/613; 210/614; 210/615-618;
       210/631; 210/912; 210/916; 210/605; 435/240.45; 435/244; 435/247-249;
       435/252.4; 435/262; 435/267; 435/801; 435/813
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3   ANSWER 5 OF 5  USPAT2 on STN
AN     2004:138960  USPAT2
TI     Method for detecting ammonia-oxidizing bacteria
IN     Hovanec, Timothy A., Moorpark, CA, UNITED STATES
PA     Aquaria, Inc., Moorpark, CA, UNITED STATES (U.S. corporation)
PI     US 7270957          B2  20070918
AI     US 2003-659980          20030910 (10)
RLI    Continuation-in-part of Ser. No. US 2000-573684, filed on 19 May 2000,
       ABANDONED
PRAI   US 2002-386217P     20020919 (60)
       US 2002-386218P     20020919 (60)
       US 2002-386219P     20020919 (60)
DT     Utility
FS     GRANTED
LN.CNT 2557
INCL   INCLM: 435/006.000
       INCLS: 435/091.200; 536/023.100; 536/024.300
NCL    NCLM:  435/006.000
       NCLS:  435/091.200; 536/023.100; 536/024.300
IC     IPCI   C12Q0001-68 [ICM,7]
       IPCI-2 C12Q0001-68 [I,A]; C07H0021-02 [I,A]; C07H0021-00 [I,C*];
              C12P0019-34 [I,A]; C12P0019-00 [I,C*]
       IPCR   C12Q0001-68 [I,C]; C12Q0001-68 [I,A]; C02F0003-06 [N,C*];
              C02F0003-06 [N,A]; C02F0003-08 [N,C*]; C02F0003-08 [N,A];
              C02F0003-34 [N,C*]; C02F0003-34 [N,A]; C07H0021-00 [I,C];
              C07H0021-02 [I,A]; C07K0014-195 [I,C*]; C07K0014-195 [I,A];
              C12N0001-20 [I,C*]; C12N0001-20 [I,A]; C12N0001-21 [I,C*];
              C12N0001-21 [I,A]; C12N0009-06 [I,C*]; C12N0009-06 [I,A];
              C12N0015-11 [I,C*]; C12N0015-11 [I,A]; C12P0003-00 [I,C*];
              C12P0003-00 [I,A]; C12P0019-00 [I,C]; C12P0019-34 [I,A];
              C12S0005-00 [I,C*]; C12S0005-00 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> d hist
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      (FILE 'HOME' ENTERED AT 03:12:20 ON 30 MAR 2009)

      INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
      AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
      CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
      DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 03:12:42 ON 30 MAR 2009
                SEA TREAT?(P)AMMONIA AND WASTEWATER AND CARRIER? AND SLUDGE AND
                ---------
                0*  FILE ADISNEWS
                0*  FILE ANTE
                0*  FILE AQUALINE
                0*  FILE BIOENG
                0*  FILE BIOTECHABS
                0*  FILE BIOTECHDS
                0*  FILE BIOTECHNO
                0*  FILE CEABA-VTB
                0*  FILE CIN
                0*  FILE FOMAD
                0*  FILE FOREGE
                0*  FILE FROSTI
                0*  FILE FSTA
                0*  FILE KOSMET
                0*  FILE NTIS
                0*  FILE NUTRACEUT
                0*  FILE PASCAL
                0*  FILE PHARMAML
                1   FILE PROMT
                3   FILE USPATFULL
                1   FILE USPAT2
                0*  FILE WATER
L1               QUE TREAT?(P) AMMONIA AND WASTEWATER AND CARRIER? AND SLUDGE AN
                 ---------

      FILE 'PROMT, USPATFULL, USPAT2' ENTERED AT 03:15:41 ON 30 MAR 2009
L2              5 S L1
L3              5 DUP REM L2 (0 DUPLICATES REMOVED)

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    16.33      19.95

STN INTERNATIONAL LOGOFF AT 03:20:15 ON 30 MAR 2009


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TERMINAL (ENTER 1, 2, 3, OR ?):2
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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  JAN 12  Match STN Content and Features to Your Information
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 NEWS  3  JAN 25  Annual Reload of MEDLINE database
 NEWS  4  FEB 16  STN Express Maintenance Release, Version 8.4.2, Is
                  Now Available for Download
 NEWS  5  FEB 16  Derwent World Patents Index (DWPI) Revises Indexing
                  of Author Abstracts
 NEWS  6  FEB 16  New FASTA Display Formats Added to USGENE and PCTGEN
 NEWS  7  FEB 16  INPADOCDB and INPAFAMDB Enriched with New Content
                  and Features
 NEWS  8  FEB 16  INSPEC Adding Its Own IPC codes and Author's E-mail
                  Addresses
 NEWS  9  APR 02  CAS Registry Number Crossover Limits Increased to
                  500,000 in Key STN Databases
 NEWS 10  APR 02  PATDPAFULL: Application and priority number formats
                  enhanced
 NEWS 11  APR 02  DWPI: New display format ALLSTR available
 NEWS 12  APR 02  New Thesaurus Added to Derwent Databases for Smooth
                  Sailing through U.S. Patent Codes
 NEWS 13  APR 02  EMBASE Adds Unique Records from MEDLINE, Expanding
                  Coverage back to 1948
 NEWS 14  APR 07  CA/CAplus CLASS Display Streamlined with Removal of
                  Pre-IPC 8 Data Fields
 NEWS 15  APR 07  50,000 World Traditional Medicine (WTM) Patents Now
                  Available in CAplus
 NEWS 16  APR 07  MEDLINE Coverage Is Extended Back to 1947
 NEWS 17  JUN 16  WPI First View (File WPIFV) will no longer be
                  available after July 30, 2010
 NEWS 18  JUN 18  DWPI: New coverage - French Granted Patents
 NEWS 19  JUN 18  CAS and FIZ Karlsruhe announce plans for a new
                  STN platform
 NEWS 20  JUN 18  IPC codes have been added to the INSPEC backfile
                  (1969-2009)

 NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2,
              AND CURRENT DISCOVER FILE IS DATED 15 JANUARY 2010.

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* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 02:53:19 ON 21 JUN 2010

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.22       0.22
```

```
INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
      AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
      CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
      DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 02:53:50 ON 21 JUN 2010

62 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s ammonia and wastewater and treat? and (fibers or filaments) and (fabric or
woven fabric) and bacteria and sludge and carrier
  23 FILES SEARCHED...
         1   FILE IFIPAT
  45 FILES SEARCHED...
         4   FILE PROMT
        15   FILE USPATFULL
         4   FILE USPAT2
  60 FILES SEARCHED...

   4 FILES HAVE ONE OR MORE ANSWERS,   62 FILES SEARCHED IN STNINDEX

L1   QUE AMMONIA AND WASTEWATER AND TREAT? AND (FIBERS OR FILAMENTS) AND (FABRI
       C OR WOVEN FABRIC) AND BACTERIA AND SLUDGE AND CARRIER

=> file ifipat promt uspatfull uspat2
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     3.45       3.67

FILE 'IFIPAT' ENTERED AT 02:56:42 ON 21 JUN 2010
COPYRIGHT (C) 2010 IFI CLAIMS(R) Patent Services (IFI)

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FILE 'USPATFULL' ENTERED AT 02:56:42 ON 21 JUN 2010
CA INDEXING COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 02:56:42 ON 21 JUN 2010
CA INDEXING COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l1
L2          24 L1

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3           23 DUP REM L2 (1 DUPLICATE REMOVED)

=> s l3 and oxygen
L4          23 L3 AND OXYGEN

=> s anammox
L5          57 ANAMMOX

=> s l4 and l5
L6           1 L4 AND L5

=> d l6 1

L6   ANSWER 1 OF 1  IFIPAT  COPYRIGHT 2010 IFI on STN
```

```
AN    11568432  IFIPAT;IFIUDB;IFICDB
TI    Method For Treating Ammonia-Containing
      Wastewater
IN    Furukawa Kenji (JP); Tokito Hiroyuki (JP)
PA    Kumamoto Technology & Industry Foundation JP (7273)
PI    US 20070218537  A1  20070920  (CITED IN 001 LATER PATENTS)
AI    US 2005-594800      20050330  (10)
      WO 2005-JP6181      20050330
                          20060928  PCT 371 date
                          20060928  PCT 102(e) date
PRAI  JP 2004-100414       20040330
FI    US 20070218537      20070920
DT    Utility; Patent Application - First Publication
FS    CHEMICAL
      APPLICATION
ED    Entered STN: 21 Sep 2007
      Last Updated on STN: 10 Oct 2007
CLMN  15


=> s l4 and core-sheath
L7          0 L4 AND CORE-SHEATH

=> s l5 and core-sheath
L8          1 L5 AND CORE-SHEATH

=> d l8

L8   ANSWER 1 OF 1  USPATFULL on STN
AN     2007:249901  USPATFULL
TI     Method For Treating Ammonia-Containing Wastewater
IN     Furukawa, Kenji, Kumamoto, JAPAN
       Tokito, Hiroyuki, Fukuoka-shi, JAPAN
PA     Kumamoto Technology and Industry Foundation, Kamimashiki-gun, JAPAN,
       8612202 (non-U.S. corporation)
PI     US 20070218537      A1  20070920
AI     US 2005-594800      A1  20050330 (10)
       WO 2005-JP6181          20050330
                               20060928  PCT 371 date
PRAI   JP 2004-100414          20040330
DT     Utility
FS     APPLICATION
LN.CNT 1024
INCL   INCLM: 435/252.100
NCL    NCLM:  435/252.100
IC     IPCI   C12N0001-20 [I,A]
       IPCR   C12N0001-20 [I,C]; C12N0001-20 [I,A]; C02F0003-10 [I,C*];
              C02F0003-10 [I,A]; C02F0003-34 [I,C*]; C02F0003-34 [I,A]


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     (FILE 'HOME' ENTERED AT 02:53:19 ON 21 JUN 2010)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
     CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
     DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 02:53:50 ON 21 JUN 2010
                SEA AMMONIA AND WASTEWATER AND TREAT? AND (FIBERS OR FILAMENTS)
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                1   FILE IFIPAT
                4   FILE PROMT
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              15   FILE USPATFULL
               4   FILE USPAT2
L1             QUE AMMONIA AND WASTEWATER AND TREAT? AND (FIBERS OR FILAMENTS)
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     FILE 'IFIPAT, PROMT, USPATFULL, USPAT2' ENTERED AT 02:56:42 ON 21 JUN 2010
L2          24 S L1
L3          23 DUP REM L2 (1 DUPLICATE REMOVED)
L4          23 S L3 AND OXYGEN
L5          57 S ANAMMOX
L6           1 S L4 AND L5
L7           0 S L4 AND CORE-SHEATH
L8           1 S L5 AND CORE-SHEATH

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                      9.56      13.23

STN INTERNATIONAL LOGOFF AT 02:57:51 ON 21 JUN 2010


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 NEWS  1          Web Page for STN Seminar Schedule - N. America
 NEWS  2  APR 02  CAS Registry Number Crossover Limits Increased to
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 NEWS  3  APR 02  PATDPAFULL: Application and priority number formats
                  enhanced
 NEWS  4  APR 02  DWPI: New display format ALLSTR available
 NEWS  5  APR 02  New Thesaurus Added to Derwent Databases for Smooth
                  Sailing through U.S. Patent Codes
 NEWS  6  APR 02  EMBASE Adds Unique Records from MEDLINE, Expanding
                  Coverage back to 1948
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                  Pre-IPC 8 Data Fields
 NEWS  8  APR 07  50,000 World Traditional Medicine (WTM) Patents Now
                  Available in CAplus
 NEWS  9  APR 07  MEDLINE Coverage Is Extended Back to 1947
 NEWS 10  JUN 16  WPI First View (File WPIFV) will no longer be
                  available after July 30, 2010
 NEWS 11  JUN 18  DWPI: New coverage - French Granted Patents
 NEWS 12  JUN 18  CAS and FIZ Karlsruhe announce plans for a new
                  STN platform
 NEWS 13  JUN 18  IPC codes have been added to the INSPEC backfile
                  (1969-2009)
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 NEWS 14  JUN 21  Removal of Pre-IPC 8 data fields streamline displays
                  in CA/CAplus, CASREACT,and MARPAT
 NEWS 15  JUN 21  Access an additional 1.8 million records exclusively
                  enhanced with 1.9 million CAS Registry Numbers --
                  EMBASE Classic on STN
 NEWS 16  JUN 28  Introducing "CAS Chemistry Research Report": 40 Years
                  of Biofuel Research Reveal China Now Atop U.S. in
                  Patenting and Commercialization of Bioethanol
 NEWS 17  JUN 29  Enhanced Batch Search Options in DGENE, USGENE,
                  and PCTGEN
 NEWS 18  JUL 19  Enhancement of citation information in INPADOC
                  databases provides new, more efficient competitor
                  analyses
 NEWS 19  JUL 26  CAS coverage of global patent authorities has
                  expanded to 61 with the addition of Costa Rica
 NEWS 20  SEP 09  New basic patent number increases precision in
                  retrieving records from USGENE

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FILE 'HOME' ENTERED AT 06:46:27 ON 13 SEP 2010

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                 SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                      0.22       0.22

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
       AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
       CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
       DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 06:46:44 ON 13 SEP 2010

62 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s ammonia and waste(p)water and sludge and bacteri? and carrier and
woven(p)fabric
          0*  FILE ADISNEWS
          0*  FILE ANTE
          0*  FILE AQUALINE
          0*  FILE BIOENG
          0*  FILE BIOTECHABS
          0*  FILE BIOTECHDS
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          0*  FILE BIOTECHNO
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          0*  FILE CIN
  30 FILES SEARCHED...
          0*  FILE FOMAD
          0*  FILE FROSTI
          0*  FILE FSTA
          0*  FILE KOSMET
          0*  FILE NTIS
          0*  FILE PASCAL
  48 FILES SEARCHED...
         17   FILE USPATFULL
          1   FILE USPATOLD
          3   FILE USPAT2
          0*  FILE WATER

   3 FILES HAVE ONE OR MORE ANSWERS,   62 FILES SEARCHED IN STNINDEX

L1   QUE AMMONIA AND WASTE(P)WATER AND SLUDGE AND BACTERI? AND CARRIER AND WOVE
       N(P)FABRIC

=> file uspatfull uspatold uspat2
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                        ENTRY    SESSION
FULL ESTIMATED COST                                      2.07       2.29

FILE 'USPATFULL' ENTERED AT 06:48:15 ON 13 SEP 2010
CA INDEXING COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATOLD' ENTERED AT 06:48:15 ON 13 SEP 2010
CA INDEXING COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 06:48:15 ON 13 SEP 2010
CA INDEXING COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l1
L2          21 L1

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3           21 DUP REM L2 (0 DUPLICATES REMOVED)

=> s l3 and core-sheath
L4           1 L3 AND CORE-SHEATH

=> d l4 1

L4   ANSWER 1 OF 1  USPATFULL on STN
AN     2004:273994  USPATFULL
TI     Anti-microbial products
IN     Foss, Stephen W., Rye Beach, NH, UNITED STATES
       Kesser, Dieter, Exeter, NH, UNITED STATES
       Sawvell, Robert V., JR., Columbia, SC, UNITED STATES
       Goodwin, Gordon, JR., Bradford, MA, UNITED STATES
PA     FOSS MANUFACTURING CO., INC., Hampton, NH (U.S. corporation)
PI     US 20040214495      A1  20041028
AI     US 2004-762920      A1  20040122 (10)
RLI    Division of Ser. No. US 2000-565138, filed on 5 May 2000, GRANTED, Pat.
       No. US 6723428 Continuation-in-part of Ser. No. US 2003-655330, filed on
       4 Sep 2003, PENDING
PRAI   US 1999-136261P         19990527 (60)
       US 1999-173207P         19991227 (60)
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       US 1999-172285P          19991217 (60)
       US 1999-172533P          19991217 (60)
       US 2000-180536P          20000207 (60)
       US 2000-181251P          20000209 (60)
       US 2000-180240P          20000204 (60)
DT     Utility
FS     APPLICATION
LN.CNT 3867
INCL   INCLM: 442/199.000
       INCLS: 428/361.000; 428/365.000; 428/373.000; 428/375.000; 442/200.000;
              442/311.000; 442/364.000; 442/415.000; 442/190.000; 442/361.000
NCL    NCLM:  442/199.000
       NCLS:  428/361.000; 428/365.000; 428/373.000; 428/375.000; 442/190.000;
              442/200.000; 442/311.000; 442/361.000; 442/364.000; 442/415.000
IPC    [7]
       IPCI   D04B0001-14 [ICM,7]; D04B0021-14 [ICS,7]; D04H0001-00 [ICS,7];
              D04B0007-00 [ICS,7]; D04H0003-00 [ICS,7]
       IPCR   A01N0057-00 [I,C*]; A01N0057-16 [I,A]; A41B0017-00 [I,C*];
              A41B0017-00 [I,A]; A41D0031-00 [I,C*]; A41D0031-00 [I,A];
              A61F0013-15 [N,C*]; A61F0013-15 [N,A]; A61L0002-16 [I,C*];
              A61L0002-238 [I,A]; B01D0039-16 [I,C*]; B01D0039-16 [I,A];
              B01D0046-00 [I,C*]; B01D0046-00 [I,A]; B32B0027-12 [I,C*];
              B32B0027-12 [I,A]; D01F0001-10 [I,C*]; D01F0001-10 [I,A];
              D01F0008-12 [I,C*]; D01F0008-12 [I,A]; D01F0008-14 [I,C*];
              D01F0008-14 [I,A]; D02G0003-44 [I,C*]; D02G0003-44 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> d l4 1 kwic

L4   ANSWER 1 OF 1  USPATFULL on STN
AB     . . .  products of diverse thickness (ranging from high thickness
       rigid products to flexible films) are made as multi-component systems
       (e.g. a core-sheath fiber) with a carrier
       portion adapted to a first function (e.g. a high strength core) and a
       secondary portion (e.g. the sheath) carrying anti-microbial.  .  .
SUMM   .  .  .  through additives on or near one or more of the surfaces. It
       may be a bi-component product having either a core-
       sheath, side-by-side or co-extruded configuration or other
       configurations (e.g. pie-wedge). One arrangement uses micro- or
       multi-component binder fibers, which are staple.  .  .
SUMM   .  .  .  and bed pads for bed ridden patients, to prevent bed sores.
       Such garments and like articles may be made of woven
       fabric, knitted fabric or non-woven
       fabric.
SUMM   .  .  .  natural fibers to form a variety of fabrics and materials. Such
       invention provides for filter materials that are resistant to
       bacterial and fungal growth as well as to the deterioration of
       the fibers contained in these filter materials. The home, business.  .
       .
SUMM   .  .  .  natural fibers to form a variety of different types of fabrics
       and materials suitable for these uses. These products suppress
       bacterial and fungal growth, and related risk of infection or
       irritiation,
SUMM   .  .  .  wholly thermoplastic stiff reinforcing multiple laminate
       moldable into compound shapes and bondable via a thermoplastic hot melt
       adhesive to a carrier surface to be reinforced and suitable
       for footwear.
SUMM   .  .  .  variety of different end use products. This invention provides
       for sheet materials for end use products that are resistant to
       bacterial and fungal growth as well as to the deterioration of
       the agents contained in these materials. The sheets can be.  .  .
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SUMM . . . and having anti-microbial properties and can be used with other synthetic or natural fibers. The invention provides wipes for suppressing bacterial and fungal growth, and the related risk of infection. Such wipes are usually disposable but can be made in washable/recyclable. . .

SUMM [0029] U.S. Pat. No. 5,900,258 discloses a method for preventing a microorganism from growing and the breakdown of urea to ammonia on the surface of skin, wall, floor, countertop or wall covering, or in absorbent materials by incorporating an effective amount. . . clothing, bedsheets, bedpads, surgical apparel, blankets, filters, filtering aids, wall coverings, countertops, and cutting boards, etc. Use of zeolite preventing bacterial infections and rashes in mammals may compromise cell wall processes including basic transport processes. Zeolites may capture or neutralize electrons. . .

SUMM [0030] U.S. Pat. No. 6,037,057 is for a bi-component core-sheath fiber in which the cross sectional area of the sheath is less than 30% of the total cross sectional area.. . .

SUMM . . . the prior art is that the anti-microbial additives are organic and many organic materials either act as antibiotics and the bacteria "learns" to go around the compound, or many of them give off dioxins in use.

SUMM . . . wash off or wear off over time and become ineffective. Also, by washing off the additives are placed into the waste water stream.

SUMM [0034] However, there is the danger of infection due to bacterial and fungal growth in urine-soaked fabrics and the overall discomfort caused by wet clothing.

SUMM [0041] The vehicle and aircraft cabin air filters are vulnerable to the seeding of bacteria and fungi from outside air sources and air conditioning systems, thus providing hospitable sites for their inhibited growth. The latter. . . when air conditioning equipment is turned on in such cabins. This smell is caused by the growth of mold and bacteria within the air conditioning system.

SUMM . . . effective material for use in air filters for vehicle and aircraft cabins that do not cause the development of resistant bacterial strains. There also still exists a need for these filters to have substrates-anti-microbial agent systems that are resistant to being. . .

SUMM [0045] Wound care dressings can introduce pathogens that increase the danger of infection due to bacterial and fungal growth into the wound tissue because it is necessary to changing these dressings frequently. As a result of. . .

SUMM [0046] Burn dressings are used to prevent infection due to high potential for introducing bacteria and other pathogens into the burn tissue due to the fact that the normal protective barrier of the skin has been grossly disrupted. The possibility of bacterial and fungal growth in the burn tissue during healing is one of the major dangers to recovery. Also, as a. . .

SUMM [0052] Thus, there still exists a need to develop metal-containing anti-microbial agents that do not cause the development of resistant bacterial strains for incorporation into fibers that are used to make a variety of materials. There also still exists a need. . .

SUMM . . . providing a substrate with desired surface characteristics and a method for producing this film. The film comprises a flexible temporary carrier film and a flexible transparent outer polymer clear coat layer releasably bonded to the temporary carrier film. A pigment base coat layer is adhered to the outer clear coat layer and is visible there through, and. . . layer. The film is produced by extruding a molten transparent thermoplastic polymer and applying the polymer to a flexible temporary carrier thereby forming a continuous thin transparent film. The formed composite may be heated while the transparent thermoplastic polymer film is bonded

to the flexible temporary carrier to evaporate the volatile liquid vehicle and form a pigment polymer layer. The heating step also molecularly relaxes the underlying. . . relieve any molecular orientation caused by the extrusion. Ellison also mentions that it is desirable to form the flexible temporary carrier from a material that can withstand the molten temperature of the transparent thermoplastic polymer. The preferred flexible temporary carriers used. . .

SUMM . . . in these applications are generally organic substances. The disadvantage of these organic agents when used as anti-microbial agents is that bacteria can develop a resistance to their action. Thus, one is faced with the emergence of bacterial strains that are no longer affected by these anti-microbial agents, which negates the function of these materials, and is harmful. . .

SUMM [0065] U.S. Pat. No. 4,401,770 for Shoe Insole Having Anti-bacterial and Anti-fungal Properties is a flexible polyurethane foam prepared from a reaction mixture incorporating an anti-bacterial and anti-fungal agent which is a pyridinethione compound. The agent is introduced into the product and is the same concentration. . .

SUMM [0066] Thus, there still exists a need to develop anti-microbial footwear components that do not cause the development of resistant bacterial strains. There also still exists a need for these components to have anti-microbial agent systems that are resistant to being. . .

SUMM [0067] Sheet materials for various uses are vulnerable to the seeding of bacteria and fungi from various sources, thus providing hospitable sites for their uninhibited growth. The latter is especially true since, depending. . .

SUMM . . . used in these applications are generally organic substances. The disadvantage of these agents when used as anti-microbial agents is that bacteria can develop a resistance to their action. Thus, one is faced with the emergence of bacterial strains that are no longer affected by these anti-microbial agents, which negates the function of these materials.

SUMM [0075] While these anti-microbial agents are designed to prevent the development of resistant bacterial strains, the use of metal-containing materials presents the added difficulty of being able to successfully disperse the anti-microbial agents throughout. . .

SUMM . . . need to develop anti-microbial non-woven sheet material and fabrics for various uses that do not cause the development of resistant bacterial strains. There also still exists a need for these filters to have substrates-anti-microbial agent systems that are resistant to being. . .

SUMM . . . Sep. 21, 1982 discusses a moldable laminate which could be molded into curved shapes and which is bondable to a carrier surface and which is useful in the making of military boots and the like. The present invention is an improvement.

SUMM [0083] While there are known anti-microbial agents, which are said to be designed to prevent the development of resistant bacterial strains, the use of metal-containing materials presents the added difficulty of being able to successfully disperse the anti-microbial agents throughout. . .

SUMM . . . for use in home and institutional furnishings, which contain metal-containing anti-microbial agents that do not cause the development of resistant bacterial strains for incorporation into fibers that are used to make a variety of fabrics. There also still exists a need. . .

SUMM . . . use increases the potential of moving pathogens from surface to surface. Any spreading of these pathogens increases the possibility of bacterial and fungal growth on a variety of surfaces, which can lead to the transmission of infectious materials, particularly in

institutional. . .

SUMM [0087] While these anti-microbial agents are designed to prevent the development of resistant bacterial strains, the use of metal-containing materials presents the added difficulty of being able to successfully disperse the anti-microbial agents throughout. . .

SUMM [0088] Thus, there still exists a need to develop metal-containing anti-microbial agents that do not cause the development of resistant bacterial strains for incorporation into fibers that are used to make a variety of materials. There also still exists a need. . .

SUMM [0092] It is another object of the present invention to provide woven and non-woven fibrous products and plastic sheet, film and formed products of coherent configuration such as garments, home and institutional furnishings, wipes,. . . through additives on or near one or more of the surfaces. It may be a bi-component product having either a core-sheath, side-by-side or co-extruded configuration or other configurations (e.g. pie-wedge). One arrangement uses micro- or multi-component binder fibers, which are staple. . . amount of the anti-microbial agent which needs to be used and thus lower the cost of such fiber and/or a fabric including such fiber.

SUMM . . . object of the invention to provide such fibrous and film products that do not sustain and indeed reduce growth/propagation of bacteria adhered or entrapped by the product in spite of other conditions conducive to survival and growth/propagation to thus prevent odors,. . .

SUMM [0102] Thus, the present invention provides fibrous, sheet/film and formed products with anti-microbials and the like in a synthetic plastic carrier comprising high and low levels of various thermoplastic polymers and controlled concentrations of inorganic anti-microbial additives mixed with polymers and. . . or close to an access zone for target microorganisms and are exposed externally by suitable sizing of anti-microbials and primary carrier thickness, e.g., using one micron square primary carrier cubes and 2 micron thick sheaths, and similar ratios of sheath to core in other sizes or multi-component configurations.

SUMM . . . these garments to be reusable without the negative effects of present reusable garments of this type. The anti-microbial may be fabric (knitted or woven) plus absorbent pads. This also applies to bed pads for bed ridden patents to prevent bed sores.

SUMM . . . to provide garments and articles intended for use for incontinent persons which articles have anti-microbial and/or anti-fungal fibers in a woven or non-woven fabric of the garment or article which is in contact with such person's skin to eliminate or substantially reduce the problems. . .

SUMM . . . of the type described which are made of fibers having metal-containing anti-microbials that do not cause the development of resistant bacterial strains for incorporation into fibers that are used to make a variety of fabrics. There also still exists a need. . .

SUMM . . . either the pad itself or, the pad combined to PVC, adhesive or other materials. The wound dressing pad may be woven, knit, non-woven or other fabric type and may contain any variety of natural or synthetic fibers in addition to the anti-microbial fibers. The pad may. . .

SUMM . . . wound care dressing, as well as the wound area, as it heals. The theory here is that a reduction in microbes/bacteria will facilitate healing and minimize the potential for infections.

SUMM [0139] As a carrier for pigments for coloration for use in finished fabrics to withstand fading;

SUMM . . . variety of applications. PETG is an amorphous binder fiber that can be blended into yarns with other fibers to form woven fabrics, as well as knits and non-woven fabrics. It has two

characteristics of particular interest: (1) excellent wetting and (2) low melting temperature (which can be controlled between 90° C. and 160° C.). It is used in the present invention as a carrier to carry pigments and/or anti-microbial additives and/or other additives and is blended with other fibers which may be natural fibers. . . . which bonds the fibers together. Therefore, PETG delivers and distributes the pigments and/or anti-microbial or other additives uniformly within a fabric, generating the finished fabrics and/or fabrics having anti-microbial properties.

SUMM . . . presence of sunlight, and will withstand many washings without deterioration. The fabric is made by blending PETG used as a carrier for pigments and/or anti-microbial additives, with cotton or any other fibers of synthetic material such as from polyester and rayon,. . .

SUMM . . . In addition to the anti-microbial component and the pigment added to the PETG, the PETG may be used as a carrier to add other properties to yarn and fabric, such as fire retardants.

SUMM [0153] The footwear component of the disclosed products can be a nonwoven fabric of synthetic fibers, primarily polyester, but which could be acrylic, nylon, rayon, acetate, PP, and the like. The fabric can have a weight from 65-400 grams per square meter and typical fibers range from 1.2 dTex to 17 dTex. . . cut length of 15-180 mm. They are carded, cross-lapped and needle punched, but could be produced on other types of non-woven equipment, such as spun laced or spun bonded equipment.

SUMM . . . a latex of SBR, vinyl acetate, PVC, acrylonitrile, and the like. Impregnation is from 1-4 times the weight of the non-woven fabric on a dry basis. A range of fillers such as clay, calcium carbonate, and the like are used to reduce. . .

SUMM . . . The product may be a multi-layer construction with the surface layer, on one or both sides, containing zeolite (or other carrier) of silver (or other metal such as tin, copper, zinc, etc.).

SUMM . . . be used to form these fibers. In the context of this invention, anti-microbial refers, but is not limited, to having anti-bacterial and anti-fungal properties.

SUMM . . . can be used to form these fibers. In the context of this invention, anti-microbial refers, but is not limited, to anti-bacterial and anti-fungal.

SUMM . . . silver zeolite or other carriers as a component in a medical wipe cloth. The finished product may be constructed of non-woven , knit, woven or other material. It may also be treated or pre-moistened with a topical treatment such as a soap solution or. . . fibers in addition to the anti-microbial fibers. A wipe cloth may be unitary or combined or laminated to some other fabric.

SUMM [0176] The purpose of this invention is to help prevent the growth and spread of microbes/bacteria when a wash cloth or wipe comes in contact with the human body. Without the anti-microbial treatment, the wash cloth or wipe merely spreads bacteria. With the anti-microbial treatment, it is believed that bacteria are killed from contact with the anti-microbial treated wash cloth or wipe.

SUMM . . . bits of organic matter which does not fully rinse out. This matter becomes a food source for the growth of bacteria and mold.

SUMM . . . healthcare wipe currently has preservatives added to the liquid in the packages so that the wet wipe will not contain bacteria or mold. Preservatives by their nature can cause allergic reactions when they come in contact with the skin.

DRWD [0190] FIG. 11 is a flow chart showing the preparation of the fibers and yarn for use in making a woven or nonwoven fabric;

DETD . . . Agency (EPA) and Food and Drug Administration (FDA) standards before making claims. The anti-microbial herein can be said to "kill

bacteria" in that it kills 99.99% (log 4) of bacteria in 24 hours, and "anti-microbial" in that is kills 99.9% (log 3) of bacteria in 24 hours. This is based upon actual test results. Testing, such as by using the shake flask test, has demonstrated that when fibers and fabrics are tested using the anti-microbial system disclosed herein, the number of bacteria on the fibers is reduced by 99.99% or more over a 24-hour period and at least by 99.9%. This testing was performed using several different bacteria, including Pseudomonas aeruginosa, Staphylococcus aereus and Klebsiella pneumoniae. The testing was conducted using both unwashed fibers and fibers that had. . . . in an application, such as a pillow. The EPA has indicated that products tested using this system may claim "Prohibits Bacteria Growth and Migration Along the Surface of the Product." The addition of the agent in this system inhibits the growth of mold and mildew or odor-causing bacteria in the fibers. This is a true anti-microbial product. The fibers retain their efficacy after simulated use conditions so that. . .

DETD . . . weight ratios. Where the specific gravities differ, appropriate adjustment is made to fulfill area standards. Where multi-component systems other than core-sheath are used (or core-sheath for fibers substantially above or below 10μ diameter) the focus is on thickness of a layer (e.g. sheath hosting the anti-microbial particles (metal per se or metal in a primary carrier such as zeolite).

DETD . . . using such metals as, e.g.: copper, zinc, tin, and silver. The best results are obtained using a zeolite (or other carrier) of silver dispersed in a polyethylene (PE), PET, or polybutylene terephthalate (PBT) carrier, but could be added directly to a melt of a thermoplastic sheath without an intermediate carrier . The total anti-microbial additive ranges from 0.1% (0.001) to 6.0% (0.06) by weight of fiber depending on performance requirements. The. . .

DETD [0220] While the preferred embodiment is a PET/PET bi-component with zeolite (or other carrier) of silver (or other metal) being used only in the sheath, resins with different viscosities can be used to obtain. . .

DETD . . . temperature polymers with a melting or softening temperature below 225° C. such as PETG. It relates to a binder fiber carrier for anti-microbial additives, which can be further blended with non-anti-microbial fibers to provide an anti-microbial finished fabric that is able. . .

DETD [0229] The binder (secondary carrier, host matrix) fiber containing polymers and anti-microbial additives in all or a portion of its cross section can be blended. . .

DETD . . . characteristics of interest: (1) excellent wetting and (2) low melting temperature. In the present invention, it is used as a carrier to carry anti-microbial additives and be blended with non-anti-microbial fibers. After heat activation, the PETG melts, continuously releases the anti-microbial. . .

DETD . . . about 1.7 micron. Therefore, the smallest thickness of the sheath would be about 2 microns. The present invention permits a core/sheath arrangement in which the sheath is as small as 2 microns in thickness with the additive incorporated into the sheath.. . .

DETD [0239] FIGS. 3 and 4 show a manner of making a core/sheath fiber with an anti-microbial additive which is incorporated into the sheath polymer prior to the final extruding of the fiber.. . .

DETD . . . was made into a batt of about 1-11/2" thickness of nonwoven material which was then placed between two layers of woven fabric to form a mattress pad. When tested using the shake flask test this provided a 99.99% microbial kill ratio.

DETD . . . blend. The testing, after the fiber was used in a wall covering, again provided a 99.99% microbial kill rate for bacteria.

DETD . . . made of an anti-microbial fiber comprises various thermoplastic polymers and additives in a mono-component or bi-component form in either a core-sheath or side-by-side configurations. The anti-microbial synthetic fibers can comprise inorganic anti-microbial additives, distributed only in certain areas in order to. . .

DETD . . . can be used to make materials for a variety of applications in which it is necessary or desirable to reduce bacterial and fungal growth and the resultant odor. Specifically, in personal hygiene situations, these materials can be used in reusable or. . . and intermittently being soaked with urine and these items as now manufactured are not effective at killing odor and infection-causing bacteria. By making these items disposable, the growth of bacteria and fungi is reduced depending upon how often they are changed, but there are environmental and other considerations to disposables.. . .

DETD . . . fibers in the manufacture of incontinent garments is desirable. These anti-microbial fiber-containing garments are useful in reducing the growth of bacteria, fungi, and other microbes once soaked with urine, thus reducing the discomfort of the individual and preventing infections generally. Specifically,. . .

DETD . . . as the wetting with urine. Thus, these anti-microbial materials, garments and articles significantly reduce the growth of mold, mildew, and bacteria in home and institutional environments.

DETD [0262] The absorbent material 31 of the liner 36 may also be made of non-woven fibrous material which is also anti-microbial if desired. In one example, the knit or woven absorbent middle layer is comprised of 50% rayon and 50% of the antimicrobial fabric of the present invention.

DETD . . . are made of anti-microbial fibers for a variety of filter applications in which it is necessary or desirable to reduce bacterial and fungal growth and their resultant odor. In homes, business/institutions machines and vehicles air filters and attached air conditioning units are the source of musty smells associated with the seeding and growth of bacteria, fungi, mold, and mildew. Because of the recirculation of outside and air-conditioned air through these filters, very favorable conditions exist for the growth of bacteria, fungi, and other microbes. Also in aircraft cabins, the air filters have the same beneficial results. An anti-microbial filter is made of fiber, which comprises various thermoplastic polymers and additives in a mono-component or bi-component form in either a core-sheath or side-by-side configurations. In these diverse applications liquid circulation and re-circulation systems (e.g. swimming pools, car washes, etc.) present similar. . .

DETD . . . quality of the air in that space increasingly reflects peoples' desire to be protected from airborne particles and odors, and bacteria. Such vehicles include pick-up trucks, SUVs, recreational vehicles, buses, over-the-road trucks, and the like.

DETD . . . be used to make filter materials for a variety of applications in which it is necessary or desirable to reduce bacterial and fungal growth and their resultant odor.

DETD . . . over the road vehicles (and stationary trailers) are a source of musty smells associated with the seeding and growth of bacteria, fungi, mold, and mildew on the evaporator and or heater cores and housings. These areas, by their nature, collect dust, dirt, bacteria, mold spores, etc. in an environment that contains the moisture, temperature, and shielding from direct sunlight necessary to promote growth. . .

DETD . . . pool water re-circulation and in combination with ozone treatments cut chlorine usage by 50-80%, provide greater softness of water, reduce sludge and odors, reduce bleaching of swim wear and towels, stabilize water even in hot weather and heavy use and reduce. . .

DETD . . . to be used in vehicle and aircraft cabin air filters will then significantly reduce the growth of mold, mildew, and bacteria. By achieving this goal, odors associated with the long-term use of these filter materials will be reduced. This will also. . .

DETD . . . is made of fiber such as various thermoplastic polymers and additives in a mono-component or bi-component form in either a core-sheath or side-by-side configurations. The anti-microbial synthetic fibers can comprise inorganic anti-microbial additives, distributed only in certain areas in order to. . .

DETD . . . fibers used to make various materials for a variety of applications in which it is necessary or desirable to reduce bacterial and fungal growth. Because these dressings must be frequently changed and the wound exposed to pathogens during this changing process,. . .

DETD . . . of wound care dressings provides a practical medical article. These anti-microbial fiber-containing dressings are useful in reducing the growth of bacteria, fungi, and other microbes that can be introduced from the environment during the changing of dressings and while performing other. . .

DETD . . . the dressing to various tissue exudates. Thus, these anti-microbial materials would then significantly reduce the growth of mold, mildew, and bacteria in wound care dressings.

DETD . . . anti-microbial fibers to make various materials for a variety of applications in which it is necessary or desirable to reduce bacterial and fungal growth. Because these dressings must be frequently changed and the burn exposed to pathogens during this changing process,. . .

DETD . . . the manufacture of burn dressings is a desirable goal. These anti-microbial fiber-containing dressings are useful in reducing the growth of bacteria, fungi, and other microbes that can be introduced from the environment during the changing of dressings and while performing other. . .

DETD . . . the dressing to various tissue exudates. Thus, these anti-microbial materials would then significantly reduce the growth of mold, mildew, and bacteria in burn dressings.

DETD [0291] Fiber and fabric which are color-fast and which can be for pastel shade fabric, as disclosed, for example, in Ser. No. 60/180,536 filed Feb. 7, 2000, the contents of which are physically incorporated herein. . . binder fiber is used and is blended into yarns with other fibers to form fabrics, as well as knits and non-woven fabrics. After heat activation, the PETG fiber melts, wets the surface of the surrounding fibers, and settles at the crossing. . . to dye the fibers and natural fabrics having anti-microbial qualities. This invention presents a method for making a pastel shade fabric and/or natural fabrics having anti-microbial activities by using PETG as a carrier for pigments and anti-microbial additives, blending them with cotton or any other fibers, activating and melting PETG from 110° to 180° C., and leaving the encapsulated pigment and anti-microbial additives on the fibers. The final pastel shade fabric having an excellent fastness for both sunlight resistance and washing without the need of going through a dye bath, and has the color remain fast for in excess of 100 commercial launderings. If the pastel shade fabric is made by blending PETG and pigments with cotton, after the activation of PETG, the final product can still be labeled as 100% cotton fibers. Thus, the present invention provides a fiber, yarn and/or fabric construction. There is a method for making a fiber blend which includes mixing a

polyester polymer, characterized by a low. . . the fiber is prepared it may be spun to make a yarn and the yarn may be made into a fabric. The heating step can take place after the yarn is made into a fabric. The additive may be a colorant, an anti-microbial agent, a fire retarding agent, or another agent which adds properties to the fiber or yarn or fabric. There is another method for making a fiber, which includes mixing a polyester polymer, characterized by a low melting temperature. . .

DETD [0293] PETG is used as a carrier for pigments, such as carbon black, phthalo blue, and the like. It is mixed with other fibers, such as natural. . . . to 160° C.) and it melts and flows along the fibers with which it is blended. It acts as a binder-carrier in that it forms nodes of color (when a colorant is used) with many points so it looks like a. . . .

DETD . . . 110° to about 180°. This melts the PETG without harming the fibers with which it has been blended. The PETG carrier melts and wicks along the other fibers, that is the cotton or other base fibers, forming small nodes, but it. . .

DETD . . . a solid color to an observer. The color remains fast for in excess of 100 commercial launderings. Since the PETG carrier melted after activation, the blended fibers such as cotton are still considered to be 100% cotton fiber.

DETD [0298] The present invention may also be used to provide anti-microbial fibers by using PETG as a carrier for anti-microbial additives. Again the PETG and the anti-microbial pellets may be melted together to form a melt which is. . .

DETD . . . into the sheath. In the fiber state, or in a more finished yarn state, or in an even further finished woven or nonwoven fabric state, the fibers are subjected to heat in the vicinity of 140-180° C. which melts the PETG without harming the. . .

DETD . . . are killed on contact with the surface of the shoe component anti-microbial surface area. The footwear components can be a woven, knit or nonwoven fabric of synthetic fibers, primarily polyester, but which could be acrylic, nylon, rayon, acetate, PP, and the like. The fabric can have a weight from 65-400 grams per square meter and typical fibers range from 1.2 dTex to 7 dTex. . . a latex of SBR, vinyl acetate, PVC, acrylonitrile, and the like. Impregnation is from 1-4 times the weight of the fabric on a dry basis. A range of fillers such as clay, calcium carbonate, and the like are used to reduce. . .

DETD . . . can be used to make the footwear products of the present invention where it is necessary or desirable to reduce bacterial and fungal growth and their resultant odor. In manufacturing these materials, any of the embodiments of fiber described can be. . .

DETD . . . are used to make sheet materials for a variety of applications in which it is necessary or desirable to reduce bacterial and fungal growth and their resultant odor. An anti-microbial sheet material is made of film which comprises various thermoplastic polymers. . .

DETD [0329] When the anti-microbial is zeolite of metal (e.g. silver, zinc, tin) or in other carrier a finely particulated and dispersible form of the choice of particle size of the zeolite is based on the thickness. . .

DETD . . . be used in making sheet materials for a variety of applications in which it is necessary or desirable to reduce bacterial and fungal growth and their resultant odor.

DETD [0358] As defined in this invention, anti-microbial means a thousand-fold reduction in bacteria. Thus, the materials and products of this invention are subjected to tests which show a 1000-fold reduction in colony forming units (CFU) of bacteria. To kill bacteria means a ten thousand-fold reduction in bacteria and the materials and products of this invention are capable of a 10,000-fold reduction in CFU of bacteria.

DETD . . . a zeolite of silver (or zirconium phosphate or dissolvable glass), dispersed in a PE, PP, PS, Nylon, PET, or PBT carrier. These additives can be added directly to the melt without a carrier. The total anti-microbial additive concentration ranges from 0.01 to 6.0 percent by weight of fiber depending on performance requirements. Other. . .

DETD . . . softening temperature below 200 degrees C., such as PETG, PE, PP, co-PET, or amorphous PET, may be used as binder carrier for anti-microbial additives.

DETD . . . a cross section through an office partition in which there is a multi-layer partition having a filling layer 240, a fabric layer 242 on one side and a third layer 244 which may also be of fabric or can be of a solid material. Office type partitions walls can be portable or semi-portable dividers of open area. . . wall fillers. Partitions of this type are used in office factory, storage and customer service areas. They are provided with fabric surfaces (woven, knits, or non-woven) for aesthetic reasons, sound absorption and/or to cushion impacts. They may also be divided with internal fabric or loose fiber fills for cushioning, wall covering substrate support and sound and/or thermal insulation purposes. The anti-microbial agent is. . . These and other environmental insults have the potential to leave residues that can be good substrates for the growth of bacteria, mold and other microbes. They can be in moist environments and the partitions are site for growth, and also from. . .

DETD . . . materials are often wet for long periods of time. This type of situation is very favorable to the growth of bacteria, fungi, and other microbes. As a result of the above, the use of anti-microbial fibers in the manufacture of materials. . .

DETD . . . these anti-microbial materials that are manufactured to be used in car washes significantly reduce the growth of mold, mildew, and bacteria. By achieving this goal, odors associated with the long-term use of these materials is reduced. Also, the number of times. . .

DETD . . . are several disadvantages to using recycled water. These include the dirt and odor-causing materials found in the water, including various bacteria, fungi, and other microbes. Because of the use of recycled water, very favorable conditions exist for the growth of bacteria, fungi, and other microbes. As a result of the above, the use of anti-microbial fibers in the manufacture of filter. . . and the hand towels used to wax, dry, and otherwise finish the car are less prone to the development of bacterial and fungal films. They are also less likely to impart undesirable odors to the car itself. In addition, the recycled. . . use of recycled water. Thus, these anti-microbial car wash filters and batts significantly reduce the growth of mold, mildew, and bacteria in the recycled water and on car wash materials. By achieving this goal, odors associated with the long-term use of. . .

DETD . . . as the PETG flows. For loose knit fabrics 15-20% anti-microbial fiber is useful to kill the microbes, whereas for flat woven fabric there can be 10% or less anti-microbial fiber to kill microbes.

DETD [0385] The same fabric can be used in bed sheets and for medical scrubs. Woven fabric is desized to remove starch from the warp yarns. High loft batting is used to stuff the mattress pad. 15%. . .

DETD . . . and 20% plain polyester. Higher percentages of bi-component, success has been achieved in killing (i.e., 99.99%) Vancomycin-resistant enterococci and staph bacteria.

DETD . . . filled with a batting material which includes 15% anti-microbial fiber produced as described below. The top and bottom layers are woven fabric which is made from yarn

which contains 15% anti-microbial fiber produced as described below.

DETD . . . can be used to make materials for a variety of applications in which it is necessary or desirable to reduce bacterial and fungal growth and their resultant odor. Specifically, in institutional environments, these materials can be used in support substrates for. . . In these situations, these support materials are subject to a variety of environmental insults that can cause the growth of bacteria , fungi, and other microbes. These include the spillage of food and its seepage inside furnishings and spills from janitorial materials.. . . These and other environmental insults have the potential to leave residues that can be good substrates for the growth of bacteria , mold, and other microbes. Therefore, unsanitary conditions can occur along with the associated bad odor, both of which can contribute. . .

DETD . . . that are manufactured to be used in support substrates for institutional furnishings significantly reduce the growth of mold, mildew, and bacteria in the institutions. By achieving this goal, odors associated with the long-term use of these materials and their frequent storage. . .

DETD . . . anti-microbial fabric or material to more easily absorb water, such as when the fabric is designed to absorb solutions containing bacteria and fungi and other microbes. Alternatively, hydrophobic fibers are effective in applications in which one wants to avoid the absorption. . .

DETD [0401] The binder fiber carrier containing polymers and anti-microbial additives can be blended with non anti-microbial fibers such as cotton, wool, polyethylene, polypropylene, PETG, polycaprolactone,. . .

DETD . . . synthetic or natural fibers to form a variety of fabrics and materials. Athletic wear is subject to the accumulation of bacteria, fungi, and associated odors that can proliferate in the presence of sweat and other bodily secretions that result from strenuous. . . constantly and intermittently being soaked with sweat and brought into contact with dirt and associated materials, they are subject to bacterial and fungal growth as well as to the development of associated odors. By manufacturing this clothing with lining materials made,. . . of clothing in bags over time could be reduced. These anti-microbial fiber-containing clothing is useful in reducing the growth of bacteria, fungi, and other microbes once soaked with sweat, thus reducing associated odors and the discomfort of the individual. Specifically, the. . .

DETD . . . fabrics can be of fibers in yarns, knitted fabrics, woven fabrics or non-woven fabrics. Mop head fabrics are subject to bacterial and fungal growth due to their constantly being wetted upon use, and are left wet in storage and allowed to. . . development of odors and the eventual deterioration of the integrity of the mop head materials themselves. Mop heads can transfer bacteria and fungi from one area to another and thus can be the cause of significant collections of microbes and fungi. Thus, these mop head fabrics made from anti-microbial materials significantly reduce the growth of mold, mildew, and bacteria. By achieving this goal, odors associated with the long-term use of these materials are reduced. Also, the number of times. . .

DETD . . . are made using anti-microbial fibers in their manufacture. These anti-microbial fiber-containing medical wipes are useful in reducing the growth of bacteria, fungi, and other microbes that can be introduced from the environment during the cleaning of surfaces in institutional settings, thus. . .

DETD [0407] The finished product may be constructed of nonwoven, knit, woven or other process. It may also be treated or pre-moistened with a topical treatment such as a soap solution or. . . fiber in addition to the anti-microbial fibers. The wipe cloth may be unitary or combined or laminated to some other fabric.

DETD . . . variety of biological and chemical environmental contaminants. Thus, these anti-microbial materials can significantly reduce the growth of mold, mildew, and bacteria in medical wipes.

DETD [0410] Dust masks are vulnerable to the capture and seeding of bacteria and fungi. They can provide hospitable sites for the protected growth and the inhalation/exhalation of microbes. These products benefit from having anti-bacterial and anti-fungal agents incorporated into them. Dust masks may be of a nonwoven construction of anti-microbial fibers (at least in. . .

DETD . . . introduces an anti-microbial fiber into the evaporation surface media for humidifiers. Such a media prevents the growth of mold, mildew, bacteria, and fungi on the media. Preventing such growth reduces or eliminates the "musty smell" currently experienced when such devices are. . . humidify home or office environments. It reduces or prevents the growth of organisms in humidifier systems to prevent odor and bacterial growth. The media may be made of a nonwoven fibrous material made at least in part of the anti-microbial fibers. . .

DETD . . . similar to that of the car wash filter in pads which are placed into the water storage tank to kill bacteria in the water.

DETD . . . bags can be made at least in part of anti-microbial fibers as described herein to reduce odors and to kill bacteria which may be present in the bags.

DETD . . . the latter incorporating anti-microbial agents as described herein, the layer weight in 2.5-9.0 oz. per square yard. The layer is non-woven needle-punched fabric with some distinct fiber orientation in the lateral direction within layer 214 itself and with punched through fibers from the. . .

DETD . . . laminate structure which can be moldable into complex, compound shapes and bondable via a thermoplastic hot melt adhesive to a carrier surface to be reinforced to provide a tough, water resistant reinforcement, usable for instance in stiffening applications as a footwear. . .

CLM What is claimed is:
5. The product claim 1, wherein the product comprises a fabric section selected from the forms consisting of woven, knit, spun, non-woven (including fleece, air laid, flocked, needle punched, spunbonded, spunlaced and thermobonded forms.

CLM What is claimed is:
8. The product of claim 7, wherein the components are in a core /sheath configuration and the anti-microbial additive is in the sheath.

CLM What is claimed is:
11. The product of claim 10, wherein the additive is a zeolite of silver or other carrier including zirconium phosphate or dissolvable glass.

CLM What is claimed is:
12. The product of claim 1, wherein the one or more component sections comprise multiple components in a core/sheath fiber configuration and the sheath is more than 30% of the cross section of the total cross section of the. . .

CLM What is claimed is:
. . . 70% of the fiber by cross sectional area, a sheath of a hydrolysis resistant polymer having over 30% of the core/sheath combined cross sectional area, and including an additive, and wherein the additive in the sheath comprises from 0.01% to 20%. . .

CLM What is claimed is:
32. The product of claim 31, wherein the anti-microbial additive is a zeolite of silver (or other carrier including zirconium phosphate and dissolvable glass) dispersed in PE, PET or PBT (or similar

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       carriers) before being added to the.  .  .
CLM    What is claimed is:
       43. The product of claim 39, wherein the article is prepared of
       woven fabric, non-woven fabric, or
       knitted fabric.

CLM    What is claimed is:
       58. The product of claim 30, forming at least part of a fabric wherein
       PETG is used as the carrier for color pigments for said
       fabric.



=> s l4 and nitrogen?
L5            0 L4 AND NITROGEN?

=> d hist

     (FILE 'HOME' ENTERED AT 06:46:27 ON 13 SEP 2010)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
     CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
     DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 06:46:44 ON 13 SEP 2010
                SEA AMMONIA AND WASTE(P)WATER AND SLUDGE AND BACTERI? AND CARRI
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               0*  FILE ADISNEWS
               0*  FILE ANTE
               0*  FILE AQUALINE
               0*  FILE BIOENG
               0*  FILE BIOTECHABS
               0*  FILE BIOTECHDS
               0*  FILE BIOTECHNO
               0*  FILE CEABA-VTB
               0*  FILE CIN
               0*  FILE FOMAD
               0*  FILE FROSTI
               0*  FILE FSTA
               0*  FILE KOSMET
               0*  FILE NTIS
               0*  FILE PASCAL
              17   FILE USPATFULL
               1   FILE USPATOLD
               3   FILE USPAT2
               0*  FILE WATER
L1              QUE AMMONIA AND WASTE(P)WATER AND SLUDGE AND BACTERI? AND CARRI
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     FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 06:48:15 ON 13 SEP 2010
L2            21 S L1
L3            21 DUP REM L2 (0 DUPLICATES REMOVED)
L4             1 S L3 AND CORE-SHEATH
L5             0 S L4 AND NITROGEN?

=> s l4 and nitrogen?(p)gas
L6            0 L4 AND NITROGEN?(P) GAS

=> s l3 and nitrogen(p)gas?
L7            9 L3 AND NITROGEN(P) GAS?

=> s l7 and core-sheath
L8            0 L7 AND CORE-SHEATH
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=> s l7 and oxygen?
L9            9 L7 AND OXYGEN?

=> s l9 and treat?(p)ammonia
L10           7 L9 AND TREAT?(P) AMMONIA

=> d l10 1-7

L10  ANSWER 1 OF 7  USPATFULL on STN
AN     2010:183923  USPATFULL
TI     SYSTEM FOR TREATING WASTEWATER AND A CONTROLLED REACTION-VOLUME MODULE
       USABLE THEREIN
IN     PEHRSON, Richard L., Limerick, PA, UNITED STATES
       Floumoy, Wayne J., Chapel Hill, NC, UNITED STATES
       Hubbell, Sarah B., Mont Clare, PA, UNITED STATES
PA     Entex Technologies Inc. (U.S. corporation)
PI     US 20100163485      A1  20100701
AI     US 2010-719527      A1  20100308 (12)
RLI    Division of Ser. No. US 2008-250053, filed on 13 Oct 2008, Pat. No. US
       7691262 Division of Ser. No. US 2005-284792, filed on 22 Nov 2005, Pat.
       No. US 7445715
PRAI   US 2004-629955P         20041122 (60)
DT     Utility
FS     APPLICATION
LN.CNT 948
INCL   INCLM: 210/615.000
NCL    NCLM:  210/615.000
IC     IPCI   C02F0003-00 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10  ANSWER 2 OF 7  USPATFULL on STN
AN     2009:123384  USPATFULL
TI     METHOD OF FEEDING MICROBIAL ACTIVITY CONTROLLING SUBSTANCE, APPARATUS
       THEREFOR, AND MAKING USE OF THE SAME, METHOD OF ENVIRONMENTAL CLEANUP
       AND BIOREACTOR
IN     Uemoto, Hiroaki, Chiba, JAPAN
       Morita, Masahiko, Chiba, JAPAN
       Watanabe, Atsushi, Chiba, JAPAN
PI     US 20090111156      A1  20090430
AI     US 2006-917642      A1  20060615 (11)
       WO 2006-JP312073        20060615
                               20071214  PCT 371 date
PRAI   JP 2005-175809          20050615
       JP 2006-128641          20060502
DT     Utility
FS     APPLICATION
LN.CNT 2576
INCL   INCLM: 435/174.000
       INCLS: 435/244.000; 435/297.200; 435/262.000
NCL    NCLM:  435/174.000
       NCLS:  435/244.000; 435/262.000; 435/297.200
IC     IPCI   C12N0011-00 [I,A]; C12N0001-38 [I,A]; C12M0001-12 [I,A]
       IPCR   C12N0011-00 [I,C]; C12N0011-00 [I,A]; C12M0001-12 [I,C];
              C12M0001-12 [I,A]; C12N0001-38 [I,C]; C12N0001-38 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10  ANSWER 3 OF 7  USPATFULL on STN
AN     2009:43039  USPATFULL
TI     SYSTEM FOR TREATING WASTEWATER AND A CONTROLLED REACTION-VOLUME MODULE
       USABLE THEREIN
IN     Pehrson, Richard L., Limerick, PA, UNITED STATES
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       Flournoy, Wayne J., Chapel Hill, NC, UNITED STATES
       Hubbell, Sarah B., Mont Clare, PA, UNITED STATES
PA     Entex Technologies Inc. (U.S. corporation)
PI     US 20090038999      A1  20090212
       US 7691262          B2  20100406
AI     US 2008-250053      A1  20081013 (12)
RLI    Division of Ser. No. US 2005-284792, filed on 22 Nov 2005, Pat. No. US
       7445715
PRAI   US 2004-629955P         20041122 (60)
DT     Utility
FS     APPLICATION
LN.CNT 1103
INCL   INCLM: 210/086.000
       INCLS: 210/170.080; 210/170.060; 210/143.000; 210/096.100; 210/085.000
NCL    NCLM:  210/150.000; 210/086.000
       NCLS:  210/085.000; 210/096.100; 210/143.000; 210/170.060; 210/170.080
IC     IPCI   C02F0003-04 [I,A]; C02F0001-66 [I,A]; C02F0003-30 [I,A];
              C02F0103-00 [I,A]; B01D0035-00 [I,A]
       IPCI-2 C02F0003-00 [I,A]
       IPCR   C02F0003-04 [I,C]; C02F0003-04 [I,A]; B01D0035-00 [I,C];
              B01D0035-00 [I,A]; C02F0001-66 [I,C]; C02F0001-66 [I,A];
              C02F0003-30 [I,C]; C02F0003-30 [I,A]; C02F0103-00 [N,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10  ANSWER 4 OF 7  USPATFULL on STN
AN     2006:148120  USPATFULL
TI     System for treating wastewater and a controlled reaction-volume module
       usable therein
IN     Pehrson, Richard L., Limerick, PA, UNITED STATES
       Flournoy, Wayne J., Chapel Hill, NC, UNITED STATES
       Hubbell, Sarah B., Mont Clare, PA, UNITED STATES
PI     US 20060124543      A1  20060615
       US 7445715          B2  20081104
AI     US 2005-284792      A1  20051122 (11)
PRAI   US 2004-629955P         20041122 (60)
DT     Utility
FS     APPLICATION
LN.CNT 1175
INCL   INCLM: 210/614.000
       INCLS: 210/615.000; 210/138.000; 210/150.000
NCL    NCLM:  210/615.000; 210/614.000
       NCLS:  210/220.000; 210/242.100; 210/242.200; 210/263.000; 210/264.000;
              210/617.000; 210/618.000; 210/138.000; 210/150.000
IC     IPCI   C02F0003-00 [I,A]
       IPCI-2 C02F0003-00 [I,A]
       IPCR   C02F0003-00 [I,C]; C02F0003-00 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10  ANSWER 5 OF 7  USPATFULL on STN
AN     2004:303789  USPATFULL
TI     Apparatus and method for treating organic waste water
IN     Tanaka, Toshihiro, Kanagawa, JAPAN
       Katsu, Yosei, Kanagawa, JAPAN
       Konishi, Satoshi, Kanagawa, JAPAN
PI     US 20040238441      A1  20041202
       US 7166220          B2  20070123
AI     US 2004-484776      A1  20040719 (10)
       WO 2002-JP12166         20021121
PRAI   JP 2001-357837          20011122
DT     Utility
FS     APPLICATION
LN.CNT 878
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INCL   INCLM: 210/605.000
NCL    NCLM:  210/605.000
       NCLS:  210/259.000; 210/609.000; 210/623.000; 210/903.000
IPC    [7]
       IPCI   C02F0003-30 [ICM,7]
       IPCI-2 C02F0003-30 [I,A]
       IPCR   C02F0003-30 [I,C]; C02F0003-30 [I,A]; C02F0003-12 [I,C*];
              C02F0003-12 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10  ANSWER 6 OF 7  USPAT2 on STN
AN     2009:43039  USPAT2
TI     System for treating wastewater having a controlled reaction-volume
       module usable therein
IN     Pehrson, Richard L., Limerick, PA, UNITED STATES
       Flournoy, Wayne J., Chapel Hill, NC, UNITED STATES
       Hubbell, Sarah B., Mont Clare, PA, UNITED STATES
PA     Entex Technologies Inc., Chapel Hill, NC, UNITED STATES (U.S.
       corporation)
PI     US 7691262          B2  20100406
AI     US 2008-250053          20081013 (12)
RLI    Division of Ser. No. US 2005-284792, filed on 22 Nov 2005, Pat. No. US
       7445715
PRAI   US 2004-629955P         20041122 (60)
DT     Utility
FS     GRANTED
LN.CNT 1187
INCL   INCLM: 210/150.000
NCL    NCLM:  210/150.000; 210/086.000
       NCLS:  210/085.000; 210/096.100; 210/143.000; 210/170.060; 210/170.080
IC     IPCI   C02F0003-04 [I,A]; C02F0001-66 [I,A]; C02F0003-30 [I,A];
              C02F0103-00 [I,A]; B01D0035-00 [I,A]
       IPCI-2 C02F0003-00 [I,A]
       IPCR   C02F0003-04 [I,C]; C02F0003-04 [I,A]; B01D0035-00 [I,C];
              B01D0035-00 [I,A]; C02F0001-66 [I,C]; C02F0001-66 [I,A];
              C02F0003-30 [I,C]; C02F0003-30 [I,A]; C02F0103-00 [N,A]
EXF    210/615; 210/150
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10  ANSWER 7 OF 7  USPAT2 on STN
AN     2006:148120  USPAT2
TI     System for treating wastewater and a controlled reaction-volume module
       usable therein
IN     Pehrson, Richard L., Limerick, PA, UNITED STATES
       Flournoy, Wayne J., Chapel Hill, NC, UNITED STATES
       Hubbell, Sarah B., Mont Clare, PA, UNITED STATES
PA     Entex Technologies Inc., Chapel Hill, NC, UNITED STATES (U.S.
       corporation)
PI     US 7445715          B2  20081104
AI     US 2005-284792          20051122 (11)
PRAI   US 2004-629955P         20041122 (60)
DT     Utility
FS     GRANTED
LN.CNT 1217
INCL   INCLM: 210/615.000
       INCLS: 210/617.000; 210/618.000; 210/220.000; 210/263.000; 210/264.000;
              210/242.100; 210/242.200
NCL    NCLM:  210/615.000; 210/614.000
       NCLS:  210/220.000; 210/242.100; 210/242.200; 210/263.000; 210/264.000;
              210/617.000; 210/618.000; 210/138.000; 210/150.000
IC     IPCI   C02F0003-00 [I,A]
       IPCI-2 C02F0003-00 [I,A]
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       IPCR   C02F0003-00 [I,C]; C02F0003-00 [I,A]
EXF    210/615-618; 210/220; 210/263-264; 210/242.1; 210/242.2
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> d hist

     (FILE 'HOME' ENTERED AT 06:46:27 ON 13 SEP 2010)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
     CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
     DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 06:46:44 ON 13 SEP 2010
               SEA AMMONIA AND WASTE(P)WATER AND SLUDGE AND BACTERI? AND CARRI
               --------
              0*  FILE ADISNEWS
              0*  FILE ANTE
              0*  FILE AQUALINE
              0*  FILE BIOENG
              0*  FILE BIOTECHABS
              0*  FILE BIOTECHDS
              0*  FILE BIOTECHNO
              0*  FILE CEABA-VTB
              0*  FILE CIN
              0*  FILE FOMAD
              0*  FILE FROSTI
              0*  FILE FSTA
              0*  FILE KOSMET
              0*  FILE NTIS
              0*  FILE PASCAL
             17   FILE USPATFULL
              1   FILE USPATOLD
              3   FILE USPAT2
              0*  FILE WATER
L1             QUE AMMONIA AND WASTE(P)WATER AND SLUDGE AND BACTERI? AND CARRI
               ---------

     FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 06:48:15 ON 13 SEP 2010
L2            21 S L1
L3            21 DUP REM L2 (0 DUPLICATES REMOVED)
L4             1 S L3 AND CORE-SHEATH
L5             0 S L4 AND NITROGEN?
L6             0 S L4 AND NITROGEN?(P)GAS
L7             9 S L3 AND NITROGEN(P)GAS?
L8             0 S L7 AND CORE-SHEATH
L9             9 S L7 AND OXYGEN?
L10            7 S L9 AND TREAT?(P)AMMONIA

=> s l10 and core-sheath
L11            0 L10 AND CORE-SHEATH

=> s l9 and fiber?
L12            8 L9 AND FIBER?

=> s l12 and carrier
L13            8 L12 AND CARRIER

=> d hist

     (FILE 'HOME' ENTERED AT 06:46:27 ON 13 SEP 2010)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
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     AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
     CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
     DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 06:46:44 ON 13 SEP 2010
                SEA AMMONIA AND WASTE(P)WATER AND SLUDGE AND BACTERI? AND CARRI
                ---------
                0*  FILE ADISNEWS
                0*  FILE ANTE
                0*  FILE AQUALINE
                0*  FILE BIOENG
                0*  FILE BIOTECHABS
                0*  FILE BIOTECHDS
                0*  FILE BIOTECHNO
                0*  FILE CEABA-VTB
                0*  FILE CIN
                0*  FILE FOMAD
                0*  FILE FROSTI
                0*  FILE FSTA
                0*  FILE KOSMET
                0*  FILE NTIS
                0*  FILE PASCAL
               17   FILE USPATFULL
                1   FILE USPATOLD
                3   FILE USPAT2
                0*  FILE WATER
L1               QUE AMMONIA AND WASTE(P)WATER AND SLUDGE AND BACTERI? AND CARRI
                 ---------

     FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 06:48:15 ON 13 SEP 2010
L2            21 S L1
L3            21 DUP REM L2 (0 DUPLICATES REMOVED)
L4             1 S L3 AND CORE-SHEATH
L5             0 S L4 AND NITROGEN?
L6             0 S L4 AND NITROGEN?(P)GAS
L7             9 S L3 AND NITROGEN(P)GAS?
L8             0 S L7 AND CORE-SHEATH
L9             9 S L7 AND OXYGEN?
L10            7 S L9 AND TREAT?(P)AMMONIA
L11            0 S L10 AND CORE-SHEATH
L12            8 S L9 AND FIBER?
L13            8 S L12 AND CARRIER

=> logoff
ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:y
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                18.44      20.73

STN INTERNATIONAL LOGOFF AT 06:51:54 ON 13 SEP 2010
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